# NONPOINT SOURCE SEDIMENT LOADINGS FROM CROPLAND

## What does the indicator tell us?

Nonpoint source pollution is derived from a wide range of sources, including agriculture, forestry, hydromodification, onsite wastewater disposal, and construction sites. No single indicator can fully capture the extent of nonpoint sources and their impacts on the aquatic environment, but sediment delivery from cropland is a reasonably good indicator of the degree to which nonpoint source pollution is prevented on agricultural lands.

This indicator presents rates of erosion from agricultural cropland. From 1977 to 1992, the amount of sediment eroded from cropland decreased by about 750 million tons. Rates of erosion from cropland are an indirect indicator of the delivery of sediment to surface waters. In any given watershed, however, the reliability of erosion rates as predictors of sediment loads is dependent on the extent to which sediment is contributed by other sources, such as gully or streambank erosion.

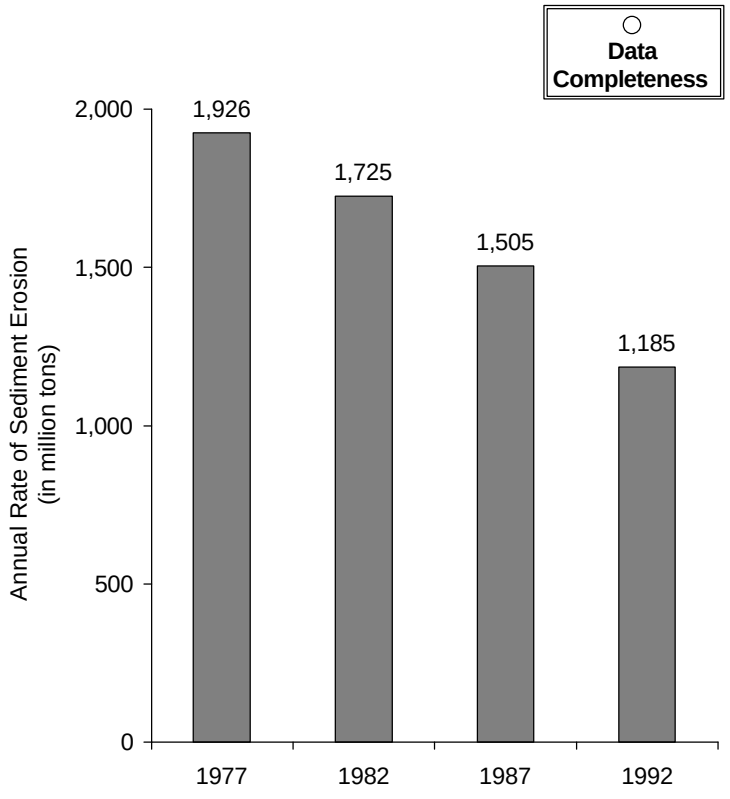
## How will the indicator be used to track progress?

In the absence of direct measures of nonpoint source pollution, it is necessary to estimate national nonpoint source loadings. The U.S. Department of Agriculture (USDA) estimates soil erosion with field measurements and statistical models, such as the universal soil loss equation.

USDA tracks and reports progress in reducing erosion rates on the Nation's agricultural lands through the National Resources Inventory (NRI), which is conducted every 5 years.

The NRI is a multi-resource inventory based on soils and other resource data collected at scientifically selected random sampling sites. The NRI covers the 48 coterminous states, Hawaii, Puerto Rico, and the U.S. Virgin Islands,

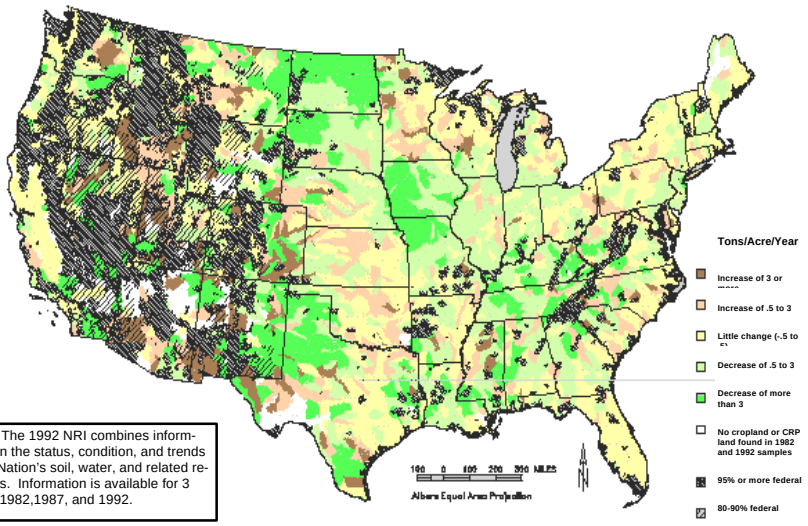
**INDICATOR 17: Nonpoint Source Sediment Loadings from Cropland**




Source: USDA, National Resource Inventory, 1992

**Proposed Milestone:** By 2005, the annual rate of soil erosion from agricultural croplands will be reduced 20 percent from 1992 levels to a total of 948 million tons per year.

**Change In Average Annual Soil Erosion by Wind and Water on Cropland and Conservation Reserve Program Land, 1982 - 1992**




**Note:** The 1992 NRI combines information on the status, condition, and trends of the Nation's soil, water, and related resources. Information is available for 3 years: 1982,1987, and 1992.

Source: U.S. Department of Agriculture, Natural Resources Inventory, 1993

but excludes Alaska. Data for the 1992 NRI were collected at more than 800,000 locations by USDA field personnel and resource inventory specialists.

## What is being done to improve the indicator?

Other national measures of nonpoint source pollution are under consideration and might be developed as more national data are made available. Another possible approach for examining nonpoint source loading focuses on selected watersheds. A combined approach, using both national and selected watershed studies, will be considered as improvements to the current indicator are pursued.

## What is being done to improve conditions measured by the indicator?

The control of erosion and sedimentation from cropland is achieved by landowners and managers, often with the assistance of local, state, and federal technical experts. EPA will continue to work with representatives from USDA, state agencies, and local soil and water conservation districts to encourage the adoption of erosion and sediment control practices, such as conservation tillage, on agricultural cropland. In addition, USDA will provide ecosystem-based assistance to landowners in the future. This effort will include a focus on reducing the offsite delivery of sediment and associated pollutants.

***For More Information:***

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